

Appl. No. 10/602,912
Reply to Office Action of April 14, 2005

REMARKS

In the April 14, 2005 Office Action, claims 1, 3, 4, 6-8, 10-13, 15, 18, and 20 were rejected, and claims 2, 5, 9, 14, 16, 17, and 19 were deemed objectionable. This Response amends claims 8, 9, 11, 14-17, 19, and 20, and cancels claims 13 and 18. After entry of the foregoing amendments, claims 1-12, 14-17, 19, and 20 (18 total claims; 6 independent claims; payment of additional claim fees is authorized by Applicant's representative) remain pending in the application. Reconsideration of the application is respectfully requested in view of the above amendments and the following remarks.

Objected Claims

According to the Office Action, claims 2, 5, 9, 14, 16, 17, and 19 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 14 has been amended to include all of the limitations of original independent claim 13, claim 16 has been amended to include all of the limitations of original independent claim 13 and all of the limitations of original dependent claim 15, claim 17 has been amended to include all of the limitations of original independent claim 13 and all of the limitations of original dependent claim 15, and claim 19 has been amended to include all of the limitations of original independent claim 18. Moreover, claim 15 has been amended to depend from claim 14, and claim 20 has been amended to depend from claim 19. Consequently, claims 14-17, 19, and 20 are now in a condition for allowance. As discussed below, Applicant respectfully traverses the rejection of claims 1 and 8 and, therefore, declines to amend claims 2, 5, or 9 at this time.

§102 Rejections

Claims 1, 6, and 7 stand rejected under 35 U.S.C. §102(b) as being anticipated by Crane, USPN 3,663,958 (hereinafter "Crane"). Applicant traverses this rejection.

Crane generally discloses a voltage monitoring device that compares an AC voltage output to a high threshold and a low threshold. FIG. 1 of Crane is a block diagram of the device, and FIG. 2 of Crane is a circuit diagram of the device. The AC output from the voltage source 12 is converted into a DC voltage, and that DC voltage is compared to the high and low threshold values [Column 1, Lines 27-34]. A standard voltage driver 30 provides a reference voltage, which serves as a second input to both the high threshold comparison circuit 22 and the

Appl. No. 10/602,912
Reply to Office Action of April 14, 2005

low threshold comparison circuit 24. According to Crane, this reference voltage is a stable reference voltage used for purposes of threshold comparison [Column 2, Lines 25-41]. If the DC voltage corresponding to the AC output voltage is greater than the high threshold or is less than the low threshold, then the circuit generates an alarm.

Applicant respectfully disagrees with the characterization of Crane as set forth in the Office Action. For example, the Office Action states that Crane discloses a diagnostic circuit that maintains a historical value of a reference voltage over a predetermined time period. In particular, the Office Action equates the output signal from Crane's voltage driver 30 to the recited historical value. This interpretation of Crane is inaccurate.

Crane does not teach or suggest the sampling of a reference voltage signal and the use of a historical value of the same reference voltage signal for purposes of comparison to a current sample of the same reference voltage signal. Indeed, Crane simply does not teach or suggest the maintenance of any historical data, information, or values associated with past samples of the reference voltage under consideration. Moreover, the Office Action refers to different "reference voltage" signals in the rejection of claim 1. In particular, the Office Action initially states that the reference voltage is the output of Crane's voltage source 12, but later refers to the output of Crane's voltage driver 30 as a historical value of the reference voltage. Crane, however, clearly states that the output of the voltage source 12 is an AC voltage signal that fluctuates over time, while the output of the voltage driver 30 is a stable voltage (12 VAC in the example provided by Crane). Notably, the output of the voltage driver 30 is fixed and it does not represent a historical value of the output of the voltage source 12.

For at least the above reasons, Crane neither discloses nor suggests each and every limitation of independent claim 1. Accordingly, claim 1 (and claims 6 and 7, which depend from claim 1) is not anticipated by Crane and Applicant requests the withdrawal of the §102(b) rejection of claims 1, 6, and 7.

Claims 8 and 10-12 stand rejected under 35 U.S.C. §102(b) as being anticipated by Bolz et al., USPN 6,456,086 (hereinafter "Bolz"). Applicant traverses this rejection, and refers the Office to the remarks contained in the previous Response dated February 1, 2005.

The Office Action (at page 7, paragraph 8) countered Applicant's previous remarks by stating that Bolz receives an operating voltage UB and provides samples of it as reference

Appl. No. 10/602,912
Reply to Office Action of April 14, 2005

voltages U1 and U2. Applicant respectfully disagrees with this interpretation of Bolz. The UB voltage of Bolz is a common operating voltage, e.g., 12 volts, and the supply voltages U1 and U2 are analog voltages obtained from conventional voltage regulators [Column 3, Lines 8-11]. As depicted in the Bolz figure, the U1 and U2 analog voltages are used as inputs to an analog-to-digital converter [Column 3, Lines 29-45].

Independent claim 8 has been amended to clarify that the recited sampling circuit is a digital sampling circuit and that the sampled values provided by the sampling circuit are sampled digital values. In contrast, the Bolz circuit does not digitally sample the UB supply voltage, and the U1 and U2 voltages are not sampled digital values as required by claim 8. Bolz simply does not teach or suggest this type of digital sampling.

For at least the above reasons, Bolz neither discloses nor suggests each and every limitation of independent claim 8. Accordingly, claim 8 (and claims 10-12, which depend from claim 8) is not anticipated by Bolz and Applicant requests the withdrawal of the §102(b) rejection of claims 8 and 10-12.

§103 Rejection

Claims 3 and 4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Crane in view of Bolz. Applicant traverses this rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. Of course, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. Applicant respectfully submits that the Examiner has not met all of the above criteria.

Claims 3 and 4 are both dependent upon claim 1. For the reasons discussed above in connection with claim 1, the proposed combination of Crane and Bolz fails to teach or suggest each and every limitation recited in claims 3 and 4. Consequently, claims 3 and 4 are not unpatentable over Crane in view of Bolz and Applicant requests the withdrawal of the §103 rejection of those claims.

Appl. No. 10/602,912
Reply to Office Action of April 14, 2005

Conclusion


In conclusion, for the reasons given above, all claims now presently in the application are believed allowable and such allowance is respectfully requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the undersigned attorney at (480) 385-5060.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

Dated: July 11, 2005

By: 
Mark M. Takahashi
Reg. No. 38,631
(480) 385-5060